Massachusetts Department of Public Health
Massachusetts Immunization Program (MIP)

MODEL STANDING ORDERS

Inactivated Influenza Vaccine (TIV)

Trivalent Types A and B

These model standing orders are current as of August 2007. They should be reviewed carefully against the most current recommendations and may be revised by the clinician signing them.

Administer influenza vaccine to any person who wishes to reduce the likelihood of becoming ill with influenza or of transmitting influenza to others should they become infected.

Influenza vaccine is especially recommended for persons in the following groups. Inactivated Influenza Vaccine (TIV) is specifically indicated for people in Group I. People in Groups II and III can receive either TIV or live, attenuated influenza vaccine (LAIV), unless contraindicated.

I. Persons at Increased Risk for Influenza-Related Complications:

1. All children 6 – 59 months of age.
2. All persons $\geq$ 50 years of age.
3. Persons 6 months - 18 years of age who are receiving long-term aspirin therapy.
4. Women who will be pregnant during influenza season.
5. Persons $\geq$ 6 months of age who:
   - Have chronic cardiovascular or pulmonary conditions, including asthma; renal, hematological or metabolic diseases (including diabetes);
   - Immunodeficiency (including immunodeficiency caused by medications or HIV).
   - Have any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration.
6. Residents of nursing homes and other chronic- care facilities.

II. Persons Who Can Transmit Influenza to Persons at High Risk:

1. Health care personnel, employees of assisted living facilities, people who provide home care to persons at risk, medical emergency response workers, and students in these professions.
2. Household contacts (including children) and caregivers of children aged < 5 years of age and adults $\geq$ 50 years of age.
3. Household contacts (including children) and caregivers of persons with medical conditions that put them at higher risk for severe complications from influenza.

III. Persons at increased risk of exposure to influenza:

1. Persons who provide essential community services.
2. Students and other persons in institutional settings (e.g., dormitories).
3. Certain travelers.

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Clinician's Signature Date

Inactivated Influenza Vaccine Order

ORDER:

1. Provide patient, parent or legal representative with a copy of the Vaccine Information Statement (VIS) and answer any questions. VIS's in English and other languages are available from the MIP and online at http://www.immunize.org/vis.
2. Screen for contraindications according to Table 1.
3. Administer inactivated influenza vaccine intramuscularly (IM), according to the recommended age-specific dose and schedule (Table 2). Administer IM vaccines at a 90^0 angle with 22-25-gauge needle. **Always check the package insert prior to administration of any vaccine**. Shake the vial well before withdrawing and shake the prefilled syringe well before administering.
   a. For infants 6 - 12 months of age, administer into the anterolateral aspect of the thigh with a 7/8- to 1-inch needle.
   b. For children $\geq$ 12 months – 18 years of age, administer in the deltoid muscle, using a 7/8- to 1¼- inch needle. For toddlers, you can use the anterolateral thigh, but the needle should be longer, usually 1 inch.
   c. For adults > 18 years of age, administer in the deltoid muscle with a 1- to 2 -inch needle.

   Note: See Table 3 for approved inactivated influenza vaccines for different age groups.
4. Administer influenza vaccine simultaneously with all other vaccines indicated.
5. If possible, observe patient for an allergic reaction for 15 - 20 minutes after administering vaccine.
6. Facilities and personnel should be available for treating immediate hypersensitivity reactions.
7. Report clinically significant adverse events to the Vaccine Adverse Event Reporting System (VAERS) at 1-800-822-7967 or http://www.vaers.hhs.gov/.
8. See the MIP document *General Protocols for Standing Orders* for further recommendations and requirements regarding vaccine administration, documentation and consent.

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Clinician's Signature Date

Inactivated Influenza Vaccine Orders

Table 1. Contraindications and Precautions to Inactivated Influenza Vaccine

Valid Contraindications for Inactivated Influenza Vaccine	Invalid Contraindications (Give Inactivated Influenza Vaccine)
Anaphylactic reaction to a previous dose of influenza vaccine; chicken eggs or any other component of the vaccine (see package insert for specific components)[1]	Mild illness with or without fever
	Non-anaphylactic allergy to any component of the vaccine
Precaution to influenza vaccine:	HIV infection[3]
Moderate to severe acute febrile illness (temporary precaution).	Pregnancy[4] or breast feeding
Guillain-Barré syndrome (GBS) $\leq$ 6 weeks of receiving a dose of influenza vaccine[2]	Treatment with warfarin (coumadin), theophylline, phenytoin, or aminophylline[5]
Anaphylactic reaction to latex: Some influenza vaccine products contain latex in the stopper, while others do not. Check the package insert specific to the product you are using. (Note: All presentations of Fluzone® and Afluria® vaccines are latex-free.)	Anticoagulation or bleeding disorder[6]

[1] Refer persons with a history of anaphylaxis to a vaccine component, but who are at risk for complications from influenza, to their health care provider for evaluation, desensitization and possible administration of influenza vaccine. Protocols have been developed for safely administering influenza vaccine to persons with egg allergies.

[2] Avoiding flu vaccine in patients who have experienced Guillain-Barré syndrome (GBS) $\leq$ 6 weeks post-vaccination **and** who are not at high risk for severe influenza complications is prudent. For most persons with a history of GBS and who are at high risk for severe complications from influenza, the established benefits of influenza vaccine justify yearly vaccination.

[3] Because influenza can result in serious illness, *vaccination will benefit many HIV-infected patients, including HIV-infected pregnant women*. Vaccine may not induce protective antibodies in patients with advanced disease. A second dose during the same flu season *does not* improve immune response in these patients.

[4] Pregnant women have an increased risk for hospitalization due to complications from influenza. No adverse fetal effects have been associated with influenza vaccine. **Inactivated influenza vaccine can administered in any trimester**.

[5] Although flu vaccine can inhibit the clearance of warfarin, theophylline, phenytoin, and aminophylline, studies show no adverse clinical effects. High-risk patients who take these medications *should* receive flu vaccine.

[6] Minimize the risk of bleeding after an IM injection in these patients by administering the vaccine immediately after the patient's receipt of replacement factor. Use a 23-gauge (or smaller) needle and immediately apply direct pressure to the vaccination site for $\geq$ 2 minutes.

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Clinician's Signature Date

Inactivated Influenza Vaccine Order

Table 2. Inactivated influenza vaccine dosage, by age group - United States

Age Group	Dose	No. of Doses
6 – 35 months	0.25 mL	1 or 2[1]
3 – 8 years	0.5 mL	1 or 2[1]
≥ 9 years	0.5 mL	1

[1]Children < 9 years of age who are receiving influenza vaccine for the first time should receive 2 doses, ≥ 1 month apart. Administer the 2nd dose before December, if possible.

- Administer 2 doses for children aged 6 months – 8 years who received influenza vaccine (either TIV or LAIV) for the first time in the previous season, but who did not receive the recommended 2nd dose in the same season.
- Children who are in their third or more year of being vaccinated and who received only 1 dose in each of their first 2 years of being vaccinated should continue receiving a single annual dose.

Table 3. Approved Inactivated Influenza Vaccines (TIV) for Different Age Groups[1,2]

Trade Name	Manufacturer	Dose/ Presentation	Thimerosal Content (mcg Hg/0.5 mL dose)	Age Group
Fluzone® Inactivated	sanofi pasteur 800-822-2463	0.25 mL prefilled syringe	0	6 – 35 mos
		0.5 mL prefilled syringe	0	≥ 36 mos
		0.5 mL vial	0	≥ 36 mos
		5.0 mL multidose vial	25	≥ 6 mos
Fluvirin® Inactivated	Novartis 800-244-7668	0.5 mL prefilled syringe	< 1.0	≥ 4 yrs
		5.0 mL multidose vial	24.5	≥ 4 yrs
Fluarix®, Inactivated	GlaxoSmithKline 866-475-8222	0.5 mL prefilled syringe	< 1.0	≥ 18 yrs
FLULAVAL®, Inactivated		5.0 mL multidose vial	25	≥ 18 yrs
Afluria®, Inactivated	CSL Biotherapies 888-435-8633	0.5 mL prefilled syringe	0	≥ 18 yrs
		5.0 mL multidose vial	24.5	≥ 18 yrs

[1]Some formulations of influenza vaccine may be approved for expanded age groups this flu season.

[2]Always check the package insert prior to administration of any vaccine to ensure that you are administering a formulation that is appropriate for the age group of the person you are vaccinating.

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